

GCCCCAGGGCTGGAGAGGTCTGAAGAAAACCTGGAGCCAGCAGCCCCGGGCTCCACTCTGGTTCTGAAAGCCCATTG 79  
 CCTGCCTCTCGGGCTCTCCACCCCACTCTCTCAGCCTTCAAGCTCAAGGGTTGATCTCAAGGAGTCAGGACCCAGG 158  
 AGAGGGAAAGAATCTGAGGAACACAGAACAGTGAGCCTTCCCAACCCCCATCTCCCTGACCACATCTCCCTCACCC 237  
 CACCCCTCCCTGCCCTGGCCCTGGACCCCATCCAGGACCTCCCTATCAAGCTGACTTCTTCACTGTCAGTGTCTTCAGGCCCCCTC 316  
 TGGGCTCCCTCCCTGGCTGGCTTCTACCACTCCCTCTATCGGCTGACTTCTTCACTGTCAGTGTCTTCAGGCCCCCTC 395  
 ACTGGGTTCCGAATGCTGATAAGAGACGGTAAGAGCAAGGCAAGGACAGCACTGTTCTCTGGCTGCTGATACCC 474  
  
 M A G G A W G 7  
 CACACCTGGGAACATCCCGAGAGACCCCTTTAACCTGGGACAGAG ATG GCT GGC GGA GCC TCG GGC 543  
  
 R L A C Y L E F L K K E E L K E F Q L L 27  
 CGC CTG GCC TGT TAC TTG GAG TTC CTG AAG AAG GAG GAG CTC AAG GAG TTC CAG CTT CTG 603  
  
 L A N K A H S R S S S G E T P A Q P E K 47  
 CTC GCC AAT AAA GCG CAC TCC AGG AGC TCT TCG GGT GAG ACA CCC GCT CAG CCA GAG AAG 663  
  
 T S G M E V A S V L V A Q Y G E Q R A W 67  
 ACG AGT GGC ATG GAG GTG GCG TCG TAC CTG CTG GCT CAG TAT CGG GAG CAG CGG GCC TCG 723  
  
 D L A L H T W E Q M G L R S L C A Q A Q 87  
 GAC CTA GCC CTC CAT ACC TGG GAG CAG ATG GGG CTG AGG TCA CTG TGC GCC CAA GCC CAG 783  
  
 E G A G H S P S F P Y S P S E P H L G S 107  
 GAA GGG GCA GGC CAC TCT CCC TCA TTC CCC TAC AGC AGT GAA CCC CAC CTG GGG TCT 843  
  
 P S Q P T S T A V L M P W I H E L P A G 127  
 CCC AGC CAA CCC ACC TCC ACC GCA GTG CTA ATG CCC TGG ATC CAT GAA TTG CCG GCG GGG 903  
  
 C T Q G S E R R R V L R Q L P D T S G R R 147  
 TGC ACC CAG GGC TCA GAG AGA AGG GTT TTG AGA CAG CTG CCT GAC ACA TCT GGA CGC CGC 963  
  
 W R E I S A S L L Y Q A L P S S P D H E 167  
 TGG AGA GAA ATC TCT GCC TCA CTC CTC TAC CAA GCT CTT CCA AGC TCC CCA GAC CAT GAG 1023  
  
 S P S Q E S P N A P T S T A V L G S W G 187  
 TCT CCA AGC CAG GAG TCA CCC AAC GGC CCC ACA TCC ACA GCA GTG CTG GGG AGC TGG GGA 1083  
  
 S P P Q P S L A P R E Q E A P G T Q W P 207  
 TCC CCA CCT CAG CCC AGC CTA GCA CCC AGA GAG CAG GAG CCT CCT GGG ACC CAA TGG CCT 1143  
  
 L D E T S G I Y Y T E I R E R E R E K S 227  
 CTG GAT GAA AGC TCA GGA ATT TAC TAC ACA GAA ATC AGA GAA AGA AGA GAG AAA TCA 1203  
  
 E K G R P P W A A V V G T P P Q A H T S 247  
 GAG AAA GGC AGG CCC CCA TGG GCA GCG GTG GTA GGA AGC CCC CCA CAG GCG CAC ACC AGC 1263  
  
 L Q P H H H P W E P S V R E S L C S T W 267  
 CTA CAG CCC CAC CAC CCA TGG GAG CCT TCT GTG AGA GAG AGC CTC TGT TCC ACA TGG 1323  
  
 P W K N E D F N Q K F T Q L L L L Q R P 287  
 CCC TGG AAA AAT GAG GAT TTT AAC CAA AAA TTC ACA CAG CTG CTA CTT CTA CAA AGA CCT 1383  
  
 H P R S Q D P L V K R S W P D Y V E E N 307  
 CAC CCC AGA AGC CAA GAT CCC CTG GTC AAG AGA AGC TGG CCT GAT TAT GTG GAG GAG AAT 1443  
  
 R G H L I E I R D L F G P G L D T Q E P 327  
 CGA GGA CAT TTA ATT CAG ATC AGA GAC TTA TTT GGC CCA GGC CTG GAT ACC CAA GAA CCT 1503  
  
 R I V I L Q G A A G I G K S T L A R Q V 347  
 CGC ATA GTC ATA CTG CAG GGG GCT GCT GGA ATT GGG AAG TCA ACA CTG GCC AGG CAG GTG 1563

FIG. 1A

K S A W G R G Q L Y G D R F Q H V F Y F 367  
 TGG GAA GCC TGG GGG AGA GGC CAG CTG TAT GGG GAC CCC TTC CAG CAT GTC TTC TAG TTC 1623  
 S C R E L A Q S K V V S L A E L I G K D 387  
 AGC TGC AGA GAG CTG GCC CAG TCC AAG GTG GTG AGT CTC GCT GAG CTC ATC GGA AAA GAT 1683  
 G T A T P A P I R Q I L S R P E R L L F 407  
 GGG ACA GCC ACT CCC GCT CCC ATT AGA CAG ATC CTG TCT AGG CCA GAG CGG CTG CTC TTC 1743  
 I L D G V D E P G W V L Q E P S S E L C 427  
 ATC CTC GAT GGT GTA GAT GAG CCA GGA TGG GTC TTG CAG GAG CGG AGT TCT GAG CTC TGT 1803  
 L H W S Q P Q P A D A L L G S L L G K T 447  
 CTG CAC TGG AGC CAG CCA CAG CGG GCG GAT GCA CTG CTG GGC AGT TTG CTG GGG AAA ACT 1863  
 I L P E A S F L I T A R T T A L Q N L I 467  
 ATA CTT CCC GAG GCA TCC TTC CTG ATC ACG GCT CGG ACC ACA GCT CTG CAG AAC CTC ATT 1923  
 P S L E Q A R W V E V L G F S E S S R K 487  
 CCT TCT TTG GAG CAG GCA CGT TGG GTA GAG GTC CTG GGG TTC TCT GAG TCC AGC AGG AAG 1983  
 E Y F Y R Y F T D E R Q A I R A F R L V 507  
 GAA TAT TTC TAC AGA TAT TTC ACA GAT GAA AGG CAA GCA ATT AGA GCC TTT AGG TTG GTC 2043  
 K S N K E L W A L C L V P H V S W L A C 527  
 AAA TCA AAC AAA GAG CTC TGG GCC CTG TGT CTT GTG CCC TGG GTG TCC TGG CTG GCC TGC 2103  
 T C L M Q Q M K R K E K L T L T S K T T 547  
 ACT TGC CTG ATG CAG ATG AAG CGG AAG GAA AAA CTC ACA CTG ACT TCC AAG ACC ACC 2163  
 T T L C L H Y L A Q A L Q A Q P L G P Q 567  
 ACA ACC CTC TGT CTA CAT TAC CTT GCC CAG GCT CTC CAA GCT CAG CCA TTG GGA CCC CAG 2223  
 L R D L C S L A A E G I W Q K K T L F S 587  
 CTC AGA GAC CTC TGC TCT CTG GCT GAG GGG ATC TGG CAA AAA AAG ACC CTT TTC AGT 2283  
 P D D L R K H G L D G A I I S T F L K M 607  
 CCA GAT GAC CTC AGG AAG CAT GGG TTA GAT GGG GCC ATC ATC TCC ACC TTC TTG AAG ATG 2343  
 G I L Q E H P I P L S Y S F I H L C F Q 627  
 GGT ATT CTT CAA GAG CAC CCC ATC CCT CTG AGC TAC AGC TTC ATT CAC CTC TGT TTC CAA 2403  
 E F F A A M S Y V L E D E K G R G K H S 647  
 GAG TTC TTT GCA GCA ATG TCC TAT GTC TTG GAG GAT GAG AAG GGG AGA GGT AAA CAT TCT 2463  
 N C I I D L E K T L E A Y G I H G L F G 667  
 AAT TGC ATC ATA GAT TTG GAA AAG ACG CTA GAA GCA TAT GGA ATA CAT GGC CTG TTT GGG 2523  
 A S T T R F L L G L L S D E G E R E M E 687  
 GCA TCA ACC ACA CGT TTC CTA TTG GGC CTG TTA AGT GAT GAG GGG GAG AGA GAG ATG GAG 2583  
 N I F H C R L S Q G R N L M Q W V P S L 707  
 AAC ATC TTT CAC TGC CGG CTG TCT CAG GGG AGG AAC CTG ATG CAG TGG GTC CCG TCC CTG 2643  
 Q L L L Q P H S L E S L H C L Y E T R N 727  
 CAG CTG CTG CTG CAG CCA CAC TCT CTG GAG TCC CTC CAC TGC TTG TAC GAG ACT CGG AAC 2703  
 K T F L T Q V M A H F E E M G M C V E T 747  
 AAA ACG TTC CTG ACA CAA GTG ATG GCC CAT TTC GAA GAA ATG GGC ATG TGT GTA GAA ACA 2763  
 D M E L L V C T F C I K F S R H V K K L 767  
 GAC ATG GAG CTC TTA GTG TGC ACT TTC TGC ATT AAA TTC AGC CGC CAC GTG AAG AAG CTT 2823  
 Q L I E G R Q H R S T W S P T M V V L F 787  
 CAG CTG ATT CAG GGC AGG CAG CAC AGA TCA ACA TGG AGC CCC ACC ATG GTA GTC CTG TTC 2883  
 R W V P Y T D A Y W Q I L F S V L K V T 807

**FIG. 1B**

AGG TGG GTC CCA GTC ACA GAT GCG TAT TGG CAG ATT CTC TTC TCC GTC CTC AAG GTC ACC 1943  
 R N L K E L D L S G N S L S H S A V K S 827  
 AGA AAC CTG AAG GAG CTG GAC CTA ACT GGA AAC TCG CTG AGC CAC TCT GCA GTG AAG AGT 3003  
 L C K T L R R P R C L L E T L R L A G C 847  
 CTT TGT AAG ACC CTG AGA CGC CCT CGC TGC CTC CTC GAG ACC CTG CGG TTG GCT GCC TGT 3063  
 G L T A E D C K D L A F G L R A N Q T L 867  
 GCC CTC ACA GCT GAG GAC TCC AAG GAC CTT GCC TTT GGG CTG AGA GCC AAC CAG ACC CTG 3123  
 T E L D L S F N V L T D A G A K H L C Q 887  
 ACC GAG CTG GAC CTG AGC TTC ATT GTG CTC ACG GAT GCT GGA GCC AAA CAC CTT TGC CAG 3183  
 R L R Q P S C K L Q R L Q L V S C G L T 907  
 AGA CTG AGA CAG CGG AGC TGC AAG CTA CAG CGA CTG CAG CTG GTC AGC TGT GCC CTC ACG 3243  
 S D C C Q D L A S V L S A S P S L K E L 927  
 TCT GAC TGC TCC CAG GAC CTG GCC TCT GTG CTT AGT GCC AGC CCC AGC CTG AAG GAG CTA 3303  
 D L Q Q N N L D D V G V R L L C E G L R 947  
 GAC CTG CAG CAG AAC AAC CTG GAT GAC GTT GGC GTG CGA CTG CTC TGT GAG GGG CTC AGG 3363  
 H P A C K L I R L G L D Q T T L S D E M 967  
 CAT CCT GCC TGC AAA CTC ATA CGC CTG CGG CTG GAC CAG ACA ACT CTG AGT GAT GAG ATG 3423  
 R Q E L R A L E Q E K P Q L L I F S R R 987  
 AGG CAG GAA CTG AGG GCC CTG GAG CAG GAG AAA CCT CAG CTG CTC ATC TTC AGC AGA CGG 3483  
 K P S V M T P T E G L D T G E M S N S T 1007  
 AAA CCA AGT GTG ATG ACC CCT ACT GAG GGC CTG GAT ACG GGA GAG ATG AGT AAT AGC ACA 3543  
 S S L K R Q R L G S E R A A S H V A Q A 1027  
 TCC TCA CTC AAG CGG CAG AGA CTC GGA TCA GAG AGG GCG GCT TCC CAT GTT GCT CAG GCT 3603  
 N L K L L D V S K I F P I A E I A E E S 1047  
 AAT CTC AAA CTC CTG GAC AGC AAG ATC TTC CCA ATT GCT GAG ATT GCA GAG GAA AGC 3663  
 S P E V V P V E L L C V P S P A S Q G D 1067  
 TCC CCA GAG GTA GTA CGG GTG GAA CTC TTG TGC GTG CCT TCT CCT GCC TCT CAA GGG GAC 3723  
 L H T K P L G T D D D F W G P T G P V A 1087  
 CTG CAT ACG AAG CCT TTG GGG ACT GAC GAT GAC TTC TGG GGC CCC AGC GGG CCT GTG GCT 3783  
 T E V V D K Z K N L Y R V H F P V A G S 1107  
 ACT GAG GTA GTT GAC AAA GAA AAG AAC TTG TAC CGA GTT CAC TTC CCT GTA GCT GGC TCC 3843  
 Y R W P N T G L C F V M R E A V T V E I 1127  
 TAC CGC TGG CCC AAC AGC GGT CTC TGC TTT GTG ATG AGA GAA CGG GTG ACC CCT GGT GAG ATT 3903  
 E F C V W D Q F L G E I N P Q H S W M V 1147  
 GAA TTC TGT GTG TGG GAC CAG TTC CTG GGT GAG ATC AAC CCA CAG CAC AGC TGG ATG GTG 3963  
 A G P L L D I K A E P G A V E A V H L P 1167  
 GCA GGG CCT CTC CTG GAC ATC AAG GCT GAG CCT CGA GCT GTG GAA GCT GTG CAC CTC CCT 4023  
 H F V A L Q G G H V D T S L F Q M A H F 1187  
 CAC TTT GTG GCT CTC CAA CGG GGC CAT GTG GAC ACA TCC CTG TTC CAA ATG GCC CAC TTT 4083  
 K E E G M L L E K P A R V E L H H I V L 1207  
 AAA GAG GAG GGG ATG CTC CTG GAG AAG CCA GCC AGG GTG GAG CTG CAT CAC ATA GTT CTG 4143  
 E N P S F S P L G V L L K M I H N A L R 1227  
 GAA AAC CCC AGC TTC TCC CCC TTG CGA GTC CTC CTG AAA ATG ATC CAT AAT GCC CTG CGC 4203  
 F I P V T S V V L L Y H R V H P E E V T 1247  
 TTC ATT CCC GTC ACC TCT CTG GTG TTG CTT TAC CAC CGC GTC CAT CCT GAG GAA GTC ACC 4263

FIG. 1C

F	H	L	Y	L	I	P	S	D	C	S	I	R	K	E	L	E	L	C	Y	1267
TTC	CAC	CTC	TAC	CTG	ATC	CCA	AGT	GAC	TCC	TCC	ATT	CGG	AAG	GAA	CTG	GAG	CTC	TGC	TAT	4323
R	S	P	G	E	S	G	L	F	S	E	F	Y	V	G	H	L	G	S	G	1287
CGA	AGC	CCT	CGA	GAA	GAC	CGG	CTG	TTC	TCC	GAG	TTC	TAC	GTT	GGC	CGC	CTG	GGA	TCA	GGG	4383
I	R	L	Q	V	K	D	K	K	D	E	T	L	V	W	E	A	L	V	K	1307
ATC	AGG	CTG	CGA	GTG	AAA	GAC	AAG	AAA	GAT	GAG	ACT	CTG	GTG	TGG	GAG	GCC	TTG	GTG	AAA	4443
P	G	D	L	M	P	A	T	T	L	I	P	P	A	R	I	A	V	P	S	1327
CCA	GGA	GAT	CTC	ATG	CCT	GCA	ACT	ACT	CTG	ATC	CCT	CCA	GCC	CGC	ATA	GCC	GTA	CCT	TCA	4503
P	L	D	A	P	Q	L	L	H	F	V	D	Q	Y	R	E	Q	L	I	A	1347
CCT	CTG	GAT	GCC	CGG	CGG	TTG	CTG	CAC	TTT	GTG	GAC	CAG	TAT	CGA	GAG	CAG	CTG	ATA	GCC	4563
R	V	T	S	V	E	V	V	L	D	K	L	H	G	Q	V	L	S	Q	E	1367
CGA	GTG	ACA	TCG	GTG	GAG	GTT	GTC	TTG	GAC	AAA	CTG	CAT	GGA	CAG	GTG	CTG	AGC	CAG	GAG	4623
Q	Y	E	R	V	L	A	E	N	T	R	P	S	Q	M	R	K	L	F	S	1387
CAG	TAC	GAG	AGG	GTG	CTG	GCT	SAG	AAC	ACG	AGG	CCC	AGC	CAG	ATG	CGG	AAG	CTG	TTC	AGC	4683
L	S	Q	S	W	D	R	K	C	K	D	G	L	Y	Q	A	L	K	E	T	1407
TTG	AGC	CAG	TCC	TGG	GAC	CGG	AAG	TGG	AAA	GAT	GGA	CTC	TAC	CAA	GCC	CTG	AAG	GAG	ACC	4743
H	P	H	L	I	M	E	L	W	E	K	G	S	K	K	G	'L	L	P	L	1427
CAT	CCT	CAC	CTC	ATT	ATG	GAA	CTC	TGG	GAG	AAG	GCC	AGC	AAA	AAG	GGA	CTC	CTG	CCA	CTC	4803
S	S	*																		1430
AGC	AGC	TGA																		4812
AGTATCACACCCAGCCCTTGACCCCTTGAGTCCTGGCTTGGCTGACCCCTCTTGGGTCTCAGTTCTTCTCTGCAAA																				4891
CAAGTTGCCATCTGGTTTGCTTCCAGCACTAAAGTAATGGAACCTTGTATGATGCCCTTGTGGCATTTATGTGTCCAT																				4970
GCCAGGGATGCCACAGGGGGCCCCAGTCAGGTGGCTAACAGCACTCTCAGGAATGTCCATCTGGAGCTGGCAAGACC																				5049
CCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGGCAAGCCTAGAGCCCTCCGGATCCCATCAGGGCGAAAG																				5128
AGGAATAGGAGGGCATCGAACCATTTGCCCTGGCTGTGTACAGGGTAGGCCCCAAAATTGGGGTTAGCGTGGAG																				5207
GCCACGTGGATTCTGGCTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAAAGTGGAGGAAGTTATTCTAG																				5286
AAAATAAGGAGTATCACAGCTTTAGAATTGTCTAGCAGGCTTCAGTTTACCAAGAAAACCCCTATAAAATTAA																				5365
AAAATTTTACTAAATTAAAGAATTAAAAAAATACAAAAAAAGAAAAAAATGAAAATAAGGAATAAGAAGTTACCTAC																				5444
AAAATTTTACTAAATTAAAGAATTAAAAAAATACAAAAAAAGAAAAAAATGAAAATAAGGAATAAGAAGTTACCTAC																				5444

FIG. 1D

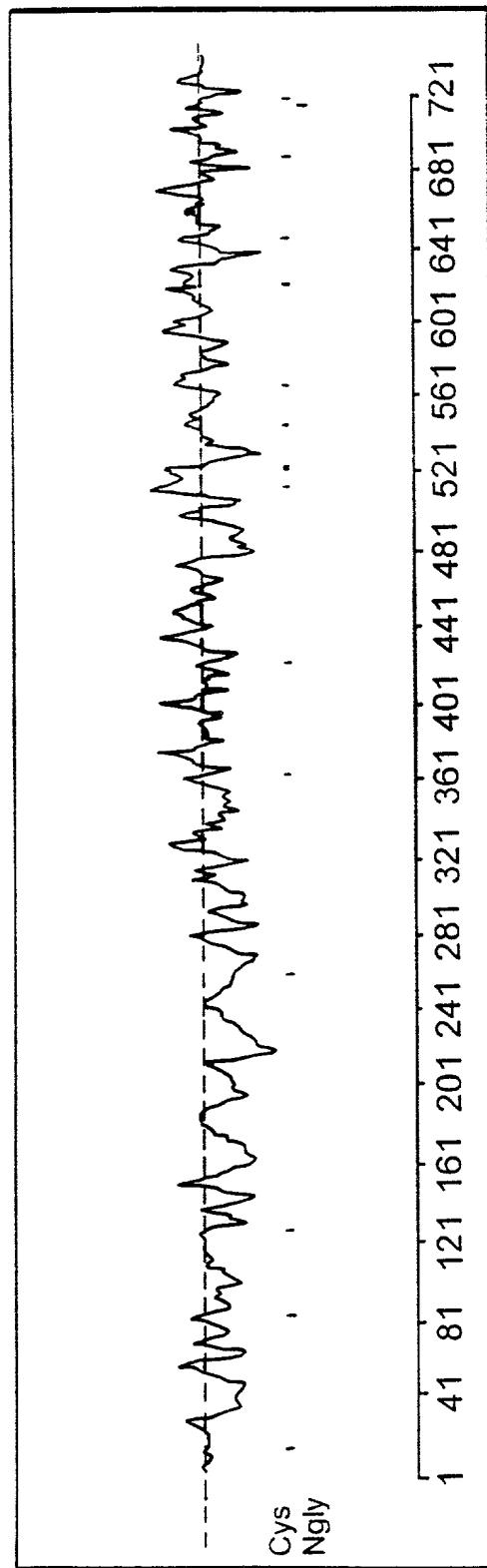


FIG. 2

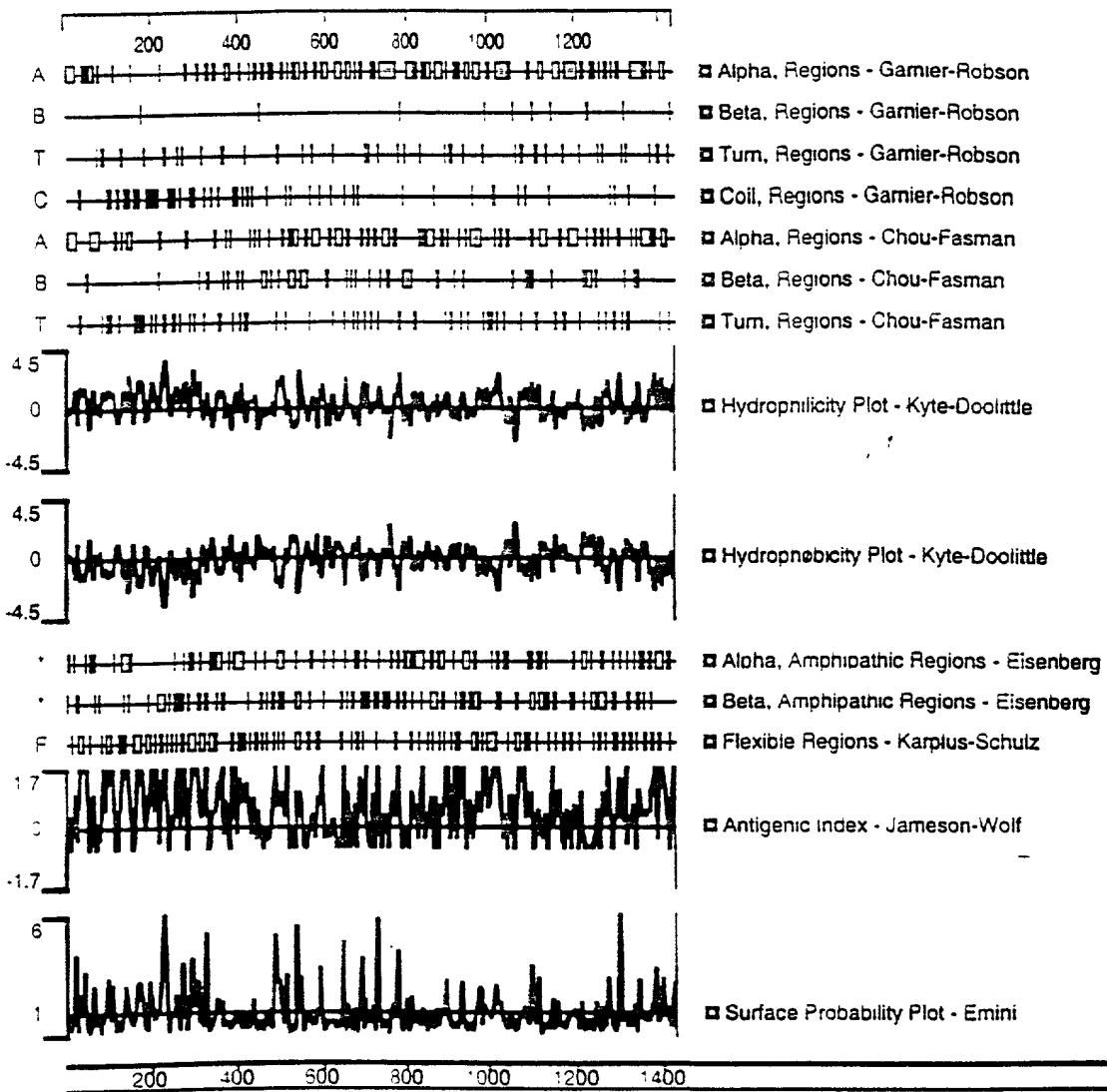


FIG. 3

CTGGTTCTGAACTTCTTTGAAATAATGTTCATAGAGAAGGAGGGCTGTCTGAGATTGAGGGAAAACRAGCTCTCAGGA 79  
 CTTCCGGTCCCCATGATGGCTGTGGGGCGTAAACGGGGTTAGTGCAAGCATCTGGGCCATCTTCATGGTAAAAAGAT 158  
 ACAGTAAAGACATAAAATACCACATTGACAATGGAAAAAAAGGAGTGTCCAGAAAAGAGTAGCAGCAGTGAGGAAGAG 237  
  
 CTGCCGAGACGGGTATACAGGGAGCTACCCCTGTGTTCTGAGACCCCTTGTGACATCTCACATTTTCCAGAAG 313  
  
 M M R Q R Q S H Y C S V L F L S V N Y L 20  
 ATG ATG AGA CAG AGG CAG AGC CAT TAT TGT TCC GTG CTG TTC CTC AGT GTC AAC TAT CTG 373  
  
 G G T F P G D I C S E E N Q I V S S Y A 40  
 GGG GGG ACA TTC CCA GGA GAC ATT TGC TCA GAA GAG AAT CAA ATA GTT TCC TCT TAT GCT 433  
  
 S K V C F E I E E D Y K N R Q F L G P E 60  
 TCT AAA GTC TGT TTT GAG ATC GAA GAA GAT TAT AAA AAT CGT CAG TTT CTG GGG CCT GAA 493  
  
 G N V D V E L I D K S T N R Y S V W F P 80  
 CGA AAT GTG GAT GTT GAG TTG ATT GAT AAG AGC ACA AAC AGA TAC AGC GTT TGG TTC CCC 553  
  
 T A G W Y L W S A T G L G F L V R D E V 100  
 ACT GCT GGC TGG TAT CTG TGG TCA GCC ACA GGC CTC GGC TTC CTG GTC AGG GAT GAG GTC 613  
  
 T V T I A F G S H S Q H L A L D L Q H H 120  
 ACA GTG AGC ATT GCG TTT CGT TCC TGG AGT CAG CAC CTG GCC CTC GAC CTG CAG CRC CAT 673  
  
 E Q W L V G G P L F D V T A E P E E A V 140  
 GAA CAG TGG CTG GTG GGC CCC TTG TTT GAT GTC ACT GCA GAG CCA GAG GAG GCT GTC 733  
  
 A E I H L P H F I S L Q G E V D V S W F 160  
 GCC GAA ATC CAC CTC CCC CAC TTC ATC TCC CTC CAA GGT GAG GTG GAC GTC TCC TGG TTT 793  
  
 L V A H F K N E G M V L E H P A R V E P 180  
 CTC GTT GCC CAT TTT AAG AAT GAA GGG ATG GTC CTG GAG CAT CCA GCC CGG GTG GAG CCT 853  
  
 F Y A V L E S P S F S L M G I L L R I A 200  
 TTC TAT GCT GTC CTG GAA AGC CCC AGC TTC TCT CTG ATG GGC ATC CTG CTG CGG ATC CCC 913  
  
 S G T R L S I P I T S N T L I Y Y H P H 220  
 AGT GGG ACT CGC CTC TCC ATC CCC ATC ACT TCC AAC ACA TTG ATC TAT TAT CAC CCC CAC 973  
  
 P E D I K F H L Y L V P S D A L L T K A 240  
 CCC GAA GAT ATT AAG TTC CAC TTG TAC CTT GTC CCC AGC GAC GCC TTG CTA ACA AAG GCG 1033  
  
 I D D E E D R F H G V R L Q T S P P M E 260  
 ATA GAT GAT GAG GAA GAT CGC TTC CAT GGT GTG CGC CTG CAG ACT TCG CCC CCA ATG GAA 1093  
  
 P L N F G S S Y I V S N S A N L K V M P 280  
 CCC CTG AAC TTT GGT TCC AGT TAT ATT GTG TCT AAT TCT GCT AAC CTG AAA GTA ATG CCC 1153  
  
 K E L K L S Y R S P G E I Q H F S K F Y 300  
 AAG GAG TTG AAA TTG TCC TAC AGG AGC CCT GGA GAA ATT CAG CAC TTC TCA AAA TTC TAT 1213  
  
 A G Q M K E P I Q L E I T E K R H G T L 320  
 GCT GGG CAG ATG AAG GAA CCC ATT CAA CTT GAG ATT ACT GAA AAA AGA CAT GGG ACT TTG 1273  
  
 V W D T E V K P V D L Q L V A A S A P P 340  
 GTG TGG GAT ACT GAG GTG AAG CCA GTG GAT CTC CAG CTT GTC GCT GCA TCA GCC CCT CCT 1333  
  
 P F S G A A F V K E N H R Q L Q A R M G 360  
 CCT TTC TCA GGT GCA GCC TTT GTG AAG GAG AAC CAC CGG CAA CTC CAA GCC AGG ATG GGG 1393  
  
 D L K G V L D D L Q D N E V L T E N E K 380  
 GAC CTG AAA GGG GTG CTC GAT GAT CTC CAG GAC AAT GAG GTT CTT ACT GAG AAT GAG AAG 1453  
  
 E L V E Q E K T R Q S K N E A L L S M V 400

FIG. 4A

GAG CTG GTG GAG CAG GAA AAG ACA CGG CAG AGC AAG AAT GAG GCC TTG CTG AGC ATG GTG 1513  
 E K K G D L A L D V L F R S I S E R D P 420  
 GAG AAG AAA GGG GAC CTG GCC CTG GAC GTG CTC TTC AGA AGC ATT AGT GAA AGG GAC CCT 1573  
 Y L V S Y L R Q Q N L \* 432  
 TAC CTC GTG TCC TAT CTT AGA CAG CAG AAT TTG TAA 1609  
 AATGAGTCAGTTAGGTAGTCTGGAAAGAGAGAACAGCGCTCTCATGGAAATGGATAAACAGAAAATGTGATCATGGAT 1688  
 TTCACTGTTCAAGACAGAAGAAGACTGGTAACATCTATCACACAGGCTTCAGGACAGACTTGTAACCTGGCATGTAC 1767  
 CTATTGACTGTATCCTCATGCNTTTCTCAAGAATGTCTGAAGAAGGTAGTAATATTCTTTAATTTTTCCAAACC 1846  
 ATTGCTTGATATATCACTATTATTCATTGACATGATTCTGAGACCCAGGATAAAAGGACATCCGGATAGGTGTGTT 1925  
 TATGAAGGATGGGCCTGGAAAGGCAACTTTCTGATTAATGTGAAAAATAATTCTRTGGACACTCCGTTGAAGTA 2004  
 TCACCTTCTCATAACTAAAGCAGAAAAGCTAACAAAAGCTTCAGCTGAGGACACTCAAGGCATACTGATGACAGT 2083  
 CTTTTTTTTTGTATGTTAGGACTTTAACCTTTATCTATGGCTACTGTTATTAGAACATGTAATGTTATTGCTG 2162  
 AAAGAGAGCACAATAATGGGAGAAAATGCAACATGAGCAGAAAATTTCCACTGGTGTAGCCTGCTACAAGGA 2241  
 GTTGTGGTTAAATGTTCATGGCACTCCAAGGAATACTGAGATGAAATGTGCTAAATCAACTCCACAGAACCCACCA 2320  
 AAAAGAAAATCAGGGTAATTCACTTAACTCTGAGACAGACATTCTGGCATGTACCTACAAAAAATAGCCACTCT 2399  
 GACATTTGGATTCTACCATAGACTCTGTCATTTGTAGCCATTCTAGCTGCTTTGATTAATGTTTGTGGCACACA 2478  
 TATTTCCATCTTTATGTTAATCTGTTAAACAAAGTCTCTAGTAGACACCATCTGGTGAGTCAGTTTTTATG 2557  
 GTGTATTTGAACCCATTCTGATAGTCTTTAACTGGAAGATTCAAATTACTACGTTAATGTAATTATTAATATGT 2636  
 TAGGATTATCTCAGTCAGCCAGTTGTTATGCTTTCTATTCTACTGTTATCACATTGTACCACTAAAGTGGAA 2715  
 TCTAGGCACTTTACCACTTAACTGATCTTACCTTTCTCATCTAGGATATAGTTATCTCTACATAATCTTCTGT 2794  
 ATCTTAAACCCATCAATAAAATTATATATATTTCTACTTTAACTCACTCAGAAGATTAAAAACTCATGAGAAGAG 2873  
 TAATCTGTTATGTTTCCAGATATTACCACTTCTGTTGCTCTCTCATTATTTCCAATTTCCTCTGCAAATT 2952  
 TCCACTTCTGATAGACGTTTTAGTTCTTCTAGAGTGGTCTGATAGGTACAGATTCTCTTATTTTGCTPCC 3031  
 CTGAGGACATTTTCTCACCTCATCTCAGTGTATTTTGCTTAGTATTTAGTTGACATTGTTCTGTT 3110  
 CAGCAGTTCTTCTGATAGCTTCTGATGAGAAATCTGCAGTCATCAAATTGTTCTTCCCTGATGTAGTG 3189  
 TGTCACTTTCTGTCAGATTCAAGGTATTATCTTCTAGTTCTGAGCTTCTGATGAGTTCTCTGT 3268  
 TTTATTCCCTTGGATTCTGCTCAATTCTAAATTGCACTTTCTGTTCTGATGAGAACTTGTAGGTTCTGCT 3347  
 ATTTCTAAAAAATCTTCTTCTGCTGATTTCTCTTCTGATGAGAACTTGTAGGAAATGTTAAGTGTGACAAAGTCCAAATAGCTT 3426  
 ATATGCCAGAAGGCCTCAGAAATAAGAATTGAAAGAATACAGAAAACAAACTTTATATCTCTCATGCTTCTA 3505  
 CTGTAAAATTCTATGCTTCTACTCTAACCTAGTTGAAATCAACAGTCTGAGAATAGATGAAAATTGTGAA 3584  
 TAGTGGAAATTCTTTAAATGAAACCTTACATGTGATTCTCTCTGAGACTCTTATGTGAAATGTTAGACTTTATGTTG 3663  
 AATCAATCAATTATATTCTTCTGTTCTCTCTGAGACTCTTATGTGAAATGTTAGACTTTATGTTG 3742  
 CTAAATGTCCCTGATATTCTACTTATTTAGAACATCTTCTGATTTCTGATGAGTGGTAATTAAATTCT 3821  
 CTATTTCTAAATTGCTGGAGTGTTCACCTGTTGTCGTCCTGAGTCAGTCACCACTTTAAATT 3900  
 TGGTCACTGATGATGTCAGTTCTAAATTCTGTTCTATATTAAATTCTGGCTTATATTCTATTCT 3979

FIG. 4B

TGC	AAATGTGTCAGCATTGCTTGGAGCTTTTTTTCAAGACAGGGCTCAACTCTGTTACCCAGGCTGGAGT	4058
GCAGTGGTGGCATCTCAAGCTCACTGCAACCTCTGCCCTCGTTCAAGCGATTATGTGCTCAGCCTCCTGAGTAGCT	4137	
GGGATTACAGGCATGCACCACCAAGGCCAGCTAATTGGTATTTAGTAGAGACAGAGTTTGCTATGTTGGCCA	4216	
GGCTGGTTTGAACTCCTGGCTCAAGTGAATCCCACCTCAGCCTCCAAAAGTGTGCTGGATTACAGGCCACTACACC	4295	
TGGCACATTTGAGTATTTTTTTTTGAGATGGAGTCGGCTCTGTCACTAGGCTGGAGTGCAGTGG	4374	
TGTGATCTCAGCTCACTGCAGCCTCTGCTCCGGGCTCAAGCGATTCTTGCCTCAGCCTCCTGAGTAGCTAGGACT	4453	
ACAGGTGCATGCCAACACGCCCGCTAATTTTTAAAAAAATATTTAGTAGAGACAGGGTTCAACATTTGGCCAG	4532	
GATGGTCTCGATCTCCTGACCTCATGATCCACCCCCCTCGCCTTCAAAGTGTGCTGGATTACAGGCATGAGCCACCGT	4611	
GCCTGGCCTCATTTGAGTATTTATAATGTCTTTTAAGTCTTGTAGATAATTCACTGTACATGTTATTCACT	4690	
GTTTGGTGTCCACTGAGTTGTCAATTGCCAGACAGTGGAGATTTTCAAGCTCATCCTTGATTCAGTAGTTCCGA	4769	
TATGTACCCCTGACATGTGAATTTATCTTATGAGACTCTGTTTATTTGATCCAAACAGAAGATGTTATTATTATT	4848	
TGGCTTCTGTGAACGTGGTCTTAATATCAGCTCAATTAAAAGCTTGCAGTGGTATTGGATCTATCCTGTGT	4927	
GCCTATGAGATTGGGTGCAGTGTATCCTGTTAGCTCATTCTCAGGGCTTGAATGTGAATTAGGACCAGCGCAATGA	5006	
ATGCTCAAGTTGGGGTTGGCGTTAGAATTCAAAAGTCTTATATGCTCAG	5059	

**FIG. 4C**

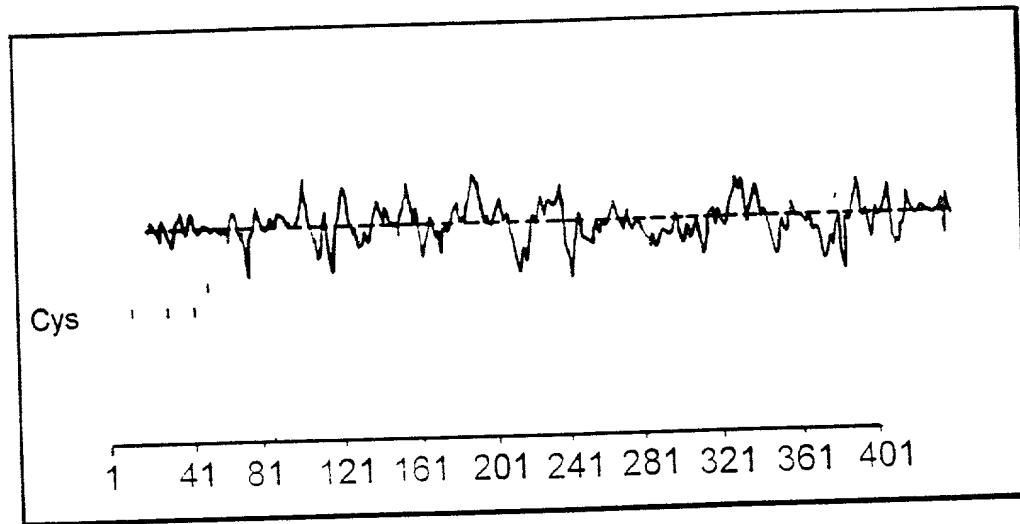


FIG. 5

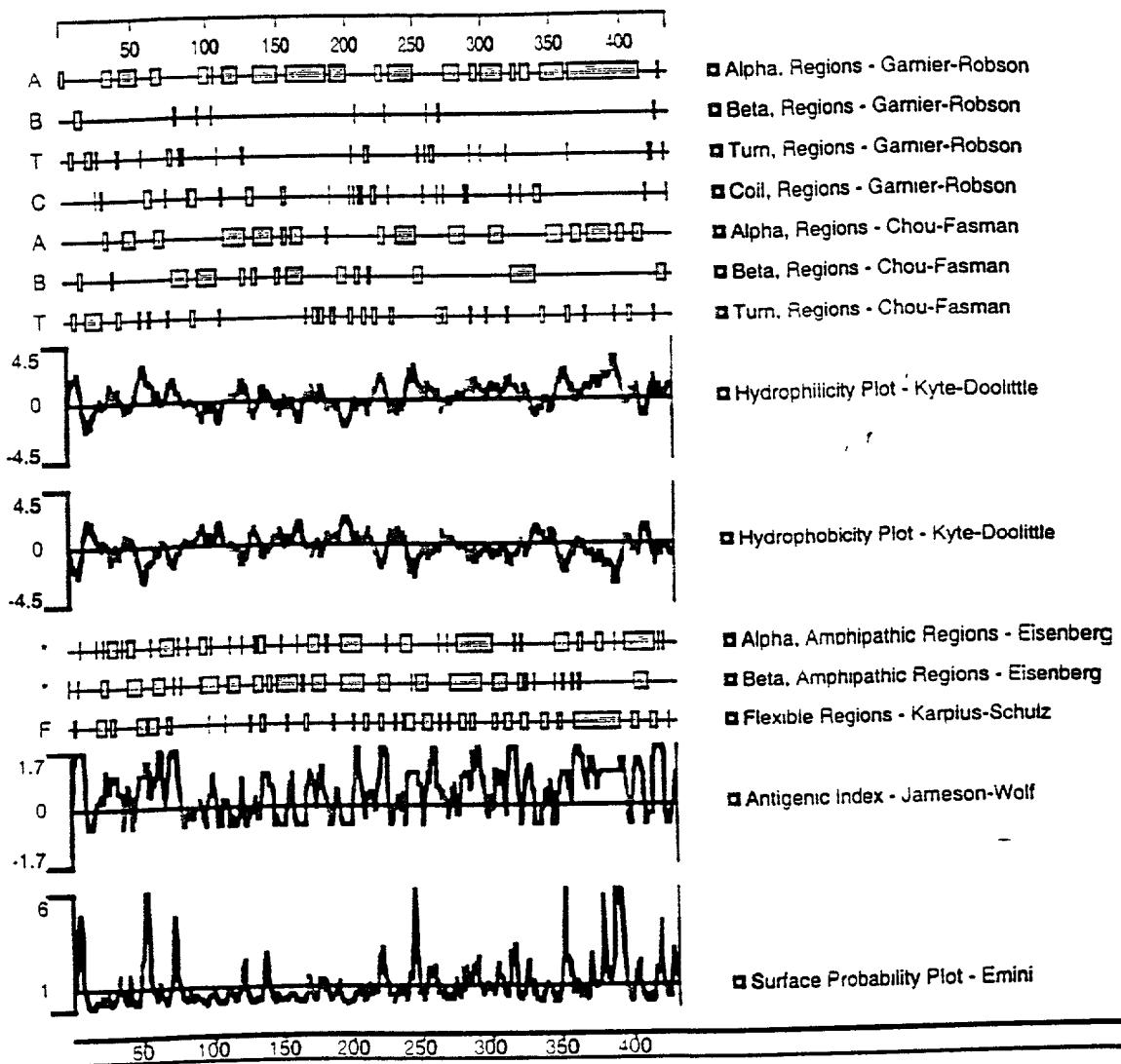


FIG. 6

CARD8	P P F S G A - A F Y K E N H R Q L Q A R M G D - - -	L K G Y L D D L Q D N E V L T E N E K E L V E
CARD7	L D A P O L L H F Y D Q Y R E Q L I A R V T - - -	S - V E V V L D K L H G - Q V L S Q E Q Y E R V -
ASC	S I A A K P G L H F I D Q H R A A L I A R V T - - -	N - V E W L L D A L Y G - K V L T D E Q Y Q A V -
APAF1	M D A K A R N C L L Q - H R E A L E K D I K T S Y - - -	I M D H M I S D G F L T I S E E E K V -
CARD4	E S - H P H I O L L K S N R E L L V T H I R N T Q C L - - -	V D N I L L K N D Y F S A E D A E I V C
CASP1	W A - - - D - K V L K E K R K L F I R S M G E G T - I N G L L D E I L L Q T R V L N K E E M E K V K	
RICK	I A - Q Q W I Q - - - S K R E D I V N Q M T E A - C L N Q S L D A L L S R D L I M K E D Y E L V S	
CARD8	Q E K - T R Q S K N E A L L S M V E K K G D L A L D V I L F R S I S E - R D P Y L - V S Y L - R	
CARD7	L I A E N T R P S Q M R K L F S L S Q S W D R K C K D G I Y Q A L K E - T H P H I - I M E L - - W	
ASC	R A E P T N P S K M R K L F S F T P A W N Y T C K D L L L O A L R E - S Q S Y L - V E D D L E R S	
APAF1	R N E P T Q Q Q R A A M L I K M I L K K D N D S Y Y S F Y N A L - - L H E G Y K D L A A B L H D	
CARD4	- A C P T Q P D K V R K I L D L V Q S K G E E V S E F F F L Y L L Q Q L A D A Y Y D L R P W I L E	
CASP1	R E N A T V M D K T R A L I D S V I P K G A Q A C Q I C I T Y I C E - E D S Y L - A G T L - G L	
RICK	- T K P T R T S K V R Q L I D T T D I Q G E E F A K V I V Q K L K D N K Q - - M G I Q D Y P E I	

Fig. 7

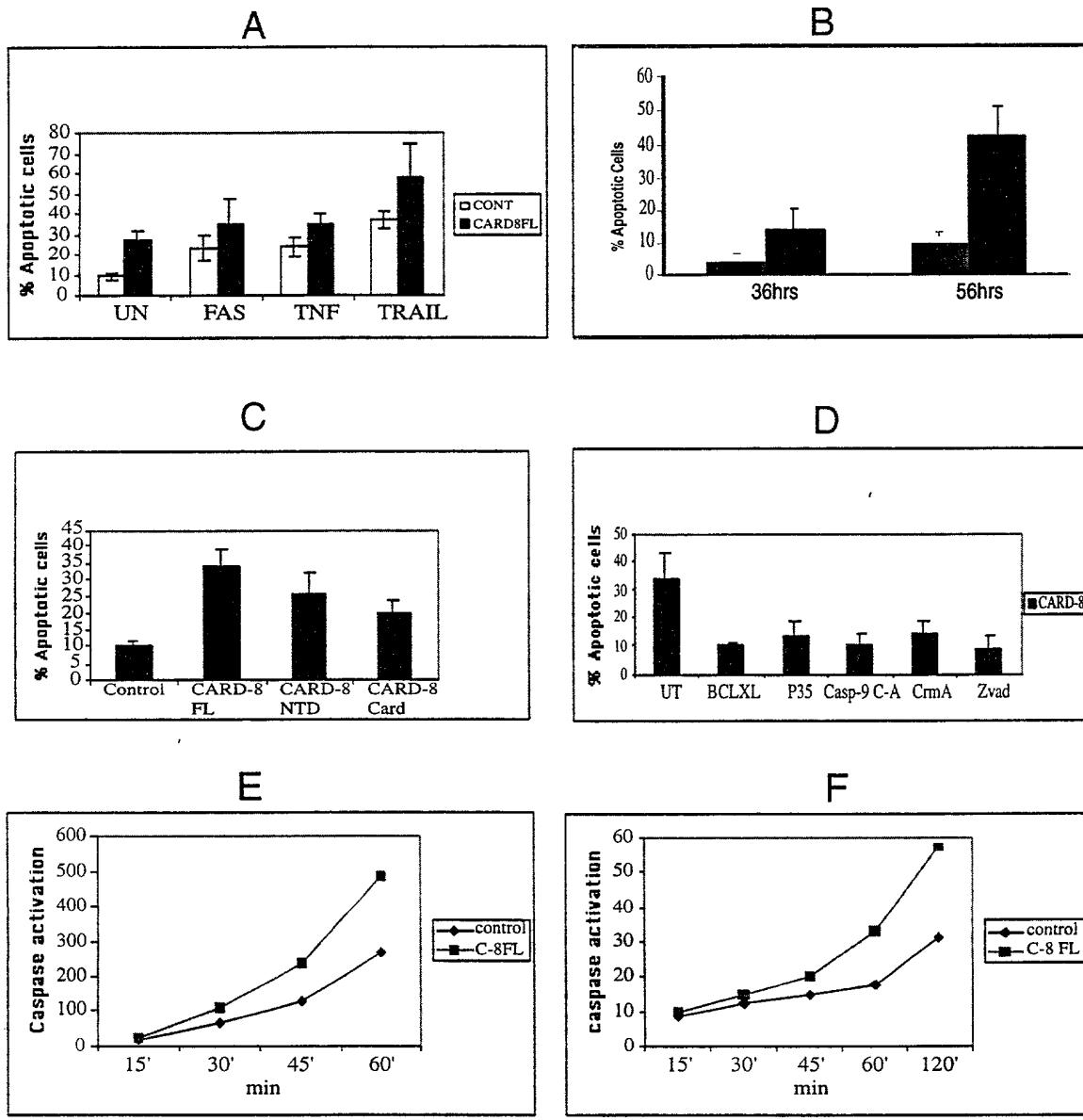
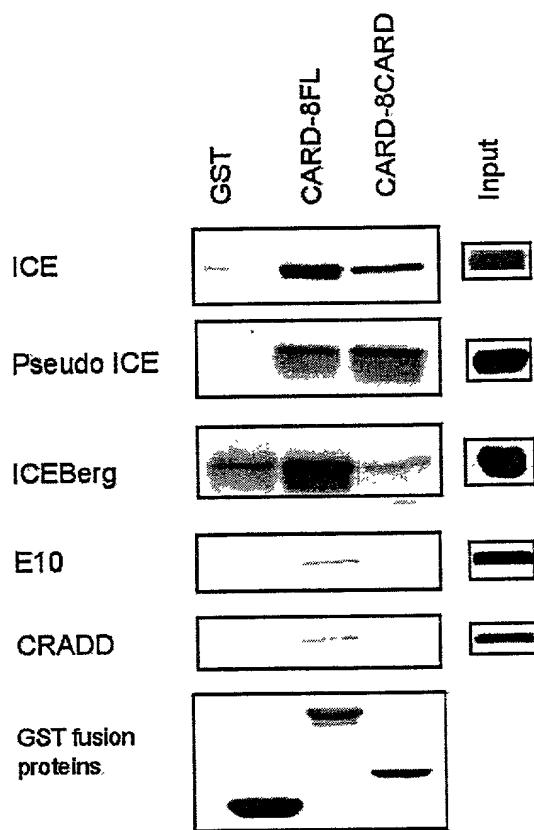
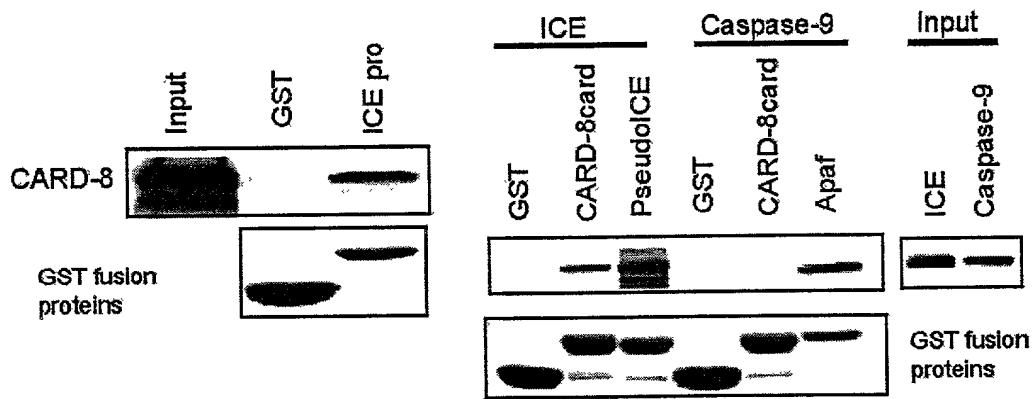


Fig. 8

A



B



C

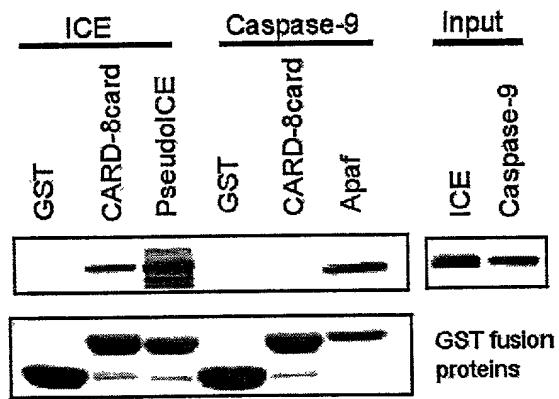
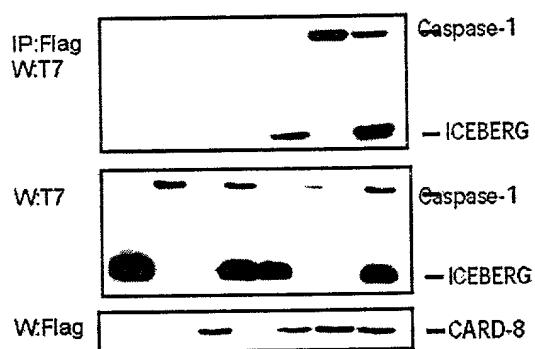


Fig. 9

T7 ICEBERG	+	-	-	+	+	-	-	+
T7Caspase-1 C-A	-	+	-	+	-	+	+	+
Flag CARD-8	-	-	+	-	+	+	+	+

**A**



T7Pseudo ICE	+	-	-	+	+	-	-	+
T7Caspase-1 C-A	-	+	-	+	-	+	+	+
Flag CARD-8	-	-	+	-	+	+	+	+

**B**

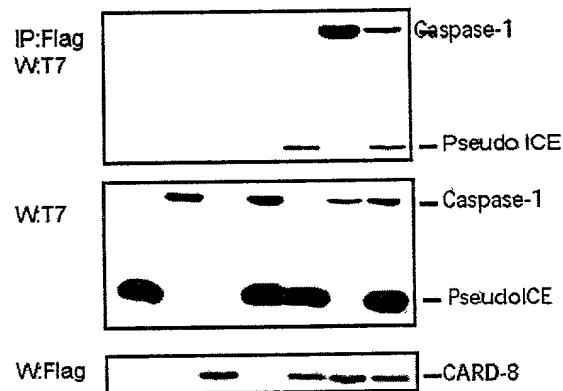


Fig. 10

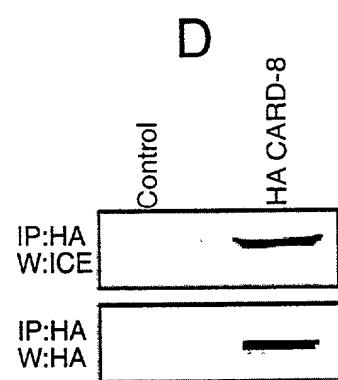
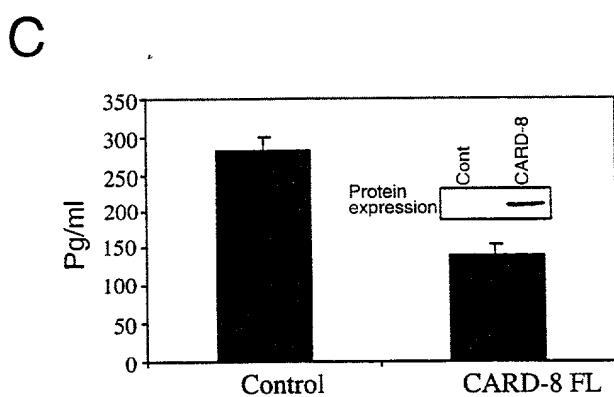
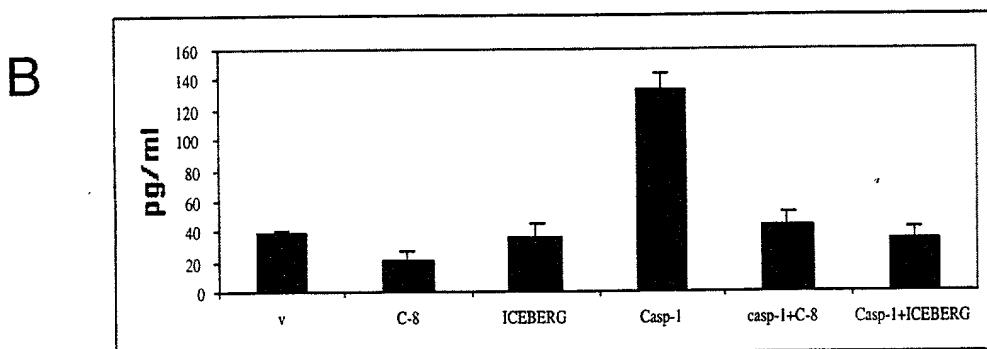


Fig. 11